Original Research Article

Price Spread and Marketing Efficiency of Black Gram in Tamil Nadu, India

ABSTRACT

A study was conducted to analyze the marketing channels, marketing cost, price spread, and marketing efficiency of Black Gram in Tamil Nadu, India. Both primary and secondary data were used. The primary data pertained to the year 2020-21 and it was collected from 60 Farmer Producer Organizations (FPOs) with 5 market intermediaries were also interviewed through pre-tested questionnaires. The main findings reveals that majority of the sample FPOs (76.00 per cent) followed the channel I which involves producer, FPOs and consumer and (24.00 per cent) of them followed channel II by involving producer, FPO, wholesalers, retailer and consumer. The total marketing cost incurred by participants in channel I and channel II was Rs.18 and Rs.25. In channel I, among the various cost incurred by FPO, electricity and storage cost had the major share of 27.78 per cent. In channel II, among the various cost incurred by the FPO, transportation cost and storage cost had the major share of 40.00 per cent. The price spread of channel I and channel II were Rs.38 and Rs.48. The result revealed that the price spread was higher in channel II compared to channel I. Channel I was more cost effective for Black gram farmers. The marketing efficiency of channel I and channel II was 6.11 and 4.8. The results revealed that the marketing efficiency was relatively higher in marketing channel I.

Key words: Marketing, Marketing Efficiency, Price Spread

INTRODUCTION

The agricultural industry, which is the backbone of the Indian economy, employs roughly 52-58 per cent of the entire population (Census 2011) and accounts for 13.9 per cent of GDP. The agriculture sector's development will continue to be critical for the population's food and nutritional security. In Indian agricultural research, ensuring nutritional security for a

growing population and long-term crop production is a top goal, with pulses playing a significant role. Many people's lives depend on it. They have the potential to promote human health, conserve soil, safeguard the environment, and contribute to global food security in India and throughout the world. Pulses are the cheapest source of protein, providing 20 to 30% of human protein requirements while also being high in calcium and iron. In India, pulses are grown in an area of about 25-26 million hectare with an annual production of 16-21 million tonnes (Kumar et al., 2017). Pulses are grown across the country with highest share coming first from Madhya Pradesh (20.3%) followed by Rajasthan (16.4), Maharashtra (13.8%), Uttar Pradesh (9.5%), Karnataka (9.3%), Andhra Pradesh (7.9%),Chhattisgarh (3.8%), Bihar (2.6%) and Tamil Nadu (2.9%) (Singh et al., 2015).

In specially Black gram produces about 24.5 lakh tonnes of Urad annually from about 4.6 million hectares of area, with an average productivity of 533 Kg per hectare in 2020-21 (agricoop.nic.in). Blackgram area accounts for about 19 per cent of India's total pulse acreage which contributes 23 per cent of total pulse production. The states of **Madhya Pradesh** (16.50 lakh ha), Uttar Pradesh (7.01 lakh ha), Rajasthan (4.56 lakh ha), Maharashtra (2.87 lakh ha), Karnataka (0.687 lakh ha) and Andhra Pradesh (0.11 lakh ha) are the major producers of black gram in India during Kharif (Black gram Outlook).

REVIEW OF LITERATURE

According to George (1972) price spread was the difference between the cost incurred and the profit realized by the agencies involved. Payments for services such as assembling raw supplies from the farm, storage, shipping, wholesaling, and retailing are included in these costs.

Kumar et al., (1973) referred that the difference between the price paid by the customer and the price received by the producer per unit of a commodity.

Sharma and Tewari **(**1995) defined price spread in regard to agricultural commodities as the difference between the price paid by the final consumer and the price received by the producer for an identical amount of farm output. This spread would be made up of intermediary marketing costs and margins.

According to Venkataramana and Gowda (1996), price spread is one of the most significant indices of market efficiency since it indicates the producer's share of the consumer's rupee.

Pelton et al., (2002) described a marketing channel as a trade connection that produces client value through the acquisition, use, and disposal of products and services.

According to Acharya and Agarwal (2004) marketing channels are pathways for agricultural goods to travel from producers to consumers. The length of the channel varies per commodity, based on the amount to be transferred, the nature of customer demand, and the degree of regional specialization in manufacturing.

According to Kohls and Uhl (2005), marketing margin was the cost of all utility-adding activities and tasks done by intermediaries. Each stage of the marketing chain takes a portion of the final weighted average selling price as a marketing margin. The profit margin must cover the costs of moving goods from one stage to the next, as well as offer a suitable return to those who handle marketing.

According to Anand and Ramesh (2007), the size of the share that the producer obtains from the price paid by the customer determines the market efficiency of any producer. The price spread is a measure of the connection between the producer and consumer prices.

According to Dhanapal (2007), marketing margin was the profit earned by each agency in the marketing of fruits and vegetables.

According to Naphade and Tingre (2008) the marketing cost of guava included grading, packing, shipping, and market expenditures.

According to Rangasamy and Dhaka (2008), marketing efficiency is defined as the ratio of value addition for products to marketing cost, where value added is defined as the difference between the cost of goods acquired by a business and the price for which those goods are sold.

According to Matkar and Jadhav (2013) marketing costs include all expenses required in moving commodities from the manufacturer to the consumer. These are the costs of carrying out different marketing operations such as transportation, screening, processing, marketing, and other necessary activities.

MATERIALS AND METHODS

In Tamil Nadu, the Madurai district was purposively selected for the study. Madurai is one of the important places of Tamil Nadu. The survey technique was used as the research method for this investigation. A well-structured interview schedule was used to obtain data from clients. The random sampling technique was used to select the FPOs in who registered in MABIF. The total sample size of the study was 60 FPOs (Board members / Company people) who enrolled as a member in Madurai Agribusiness Incubation Forum (MABIF). It was observed that there were two marketing channels followed by the Black gram marketing. In channel I, the partners were producer, FPOs and consumer. In channel II, the partners were producer, FPO, wholesaler, retailer and consumer. The primary data regarding on marketing cost, marketing channels, price-spread, marketing efficiency and constraints in marketing and channels used were collected from the sample farmers as well as from different market functionaries by interviewing them with the help of specifically designed and pre tested schedules during the agricultural year 2021-2022.

The marketing cost is the total of all costs involved in the movement of the produce, which includes transportation, loading and unloading, packing, promotion, processing, and so on.

The marketing margin of a product is the difference between what a company pays for the product and what it charges for the product.

The difference between the price paid by consumers and the net price received by the producer for an identical amount of agricultural produce was characterized as the price spread. It was stated as a per centage of the price paid by the consumer.

$$\text{Price Spread} = \frac{(\text{Consumer Price} - \text{Net price of producer}) \times 100}{\text{Consumer Price}}$$

Marketing efficiency is the ratio of market output to the marketing input. A detailed study of marketing efficiency on the produce of sampled respondents was determined. Shepherd's method was used to assess the efficiency of the marketing channels which is given by

$$\text{Marketing efficiency} = \text{Consumer price} / \text{Marketing cost}$$

RESULTS AND DICUSSION

It could be observed from the Table. 1, that majority of the sample FPOs (76.00 per cent) followed the channel I which involves producer, FPOs and consumer and (24.00 per cent) of them followed channel II by involving producer, FPO, wholesalers, retailer and consumer. Out of five marketing channels these two channels are used by the intermediaries.

From the Table. 2, it could be inferred that the total marketing cost incurred by participants in channel I and channel II was Rs.18 and Rs.25. In channel I, among the various cost incurred by FPO, electricity and storage cost had the major share of (27.78 per cent) followed by grading cost (16.67 per cent), transportation cost (11.11 per cent) and packing cost and labeling cost (11.11 per cent) and loading and unloading cost (5.56 per cent).

In channel II, among the various cost incurred by the FPO, transportation cost and storage cost had the major share of (40.00 per cent) followed by loading and unloading cost (20.00 per cent). Among the various cost incurred by wholesaler, electricity cost had the major share of (23.33 per cent), followed by transportation cost (20.00 per cent) and grading cost (20.00 per cent), loading and unloading cost (13.33 per cent) and storage cost (13.33 per cent) and packing and labeling cost (10.00 per cent). Among the various cost incurred by retailer, transportation cost had the major share of (80.00 per cent) followed by storage cost (20.00 per cent).

It could be inferred from the Table. 3 that the marketing channel I comprised of farmer, FPO and consumer. The price received by the farmer was Rs.72 per kg and the price received by FPO was Rs.110. The marketing cost and market margin of FPO were Rs. 18 and Rs.20.

The marketing channel II comprised of farmer, FPO, wholesaler, retailer and consumer. The price received by farmer was Rs.72 per kg. The price received by FPO and wholesaler were Rs.82 and Rs.105. The price received by the retailer was Rs. 120. The marketing cost and market margin of FPO was Rs. 5. The marketing cost and market margin of wholesaler were Rs.15 and Rs.8. The marketing cost and market margin of retailer were Rs.5 and Rs.10.

The price spread of channel I and channel II were Rs.38 and Rs.48. The results revealed that the price spread was higher in channel II compared to channel I. Channel I was more cost effective for Black gram farmers. Because the price spread amount and the marketing cost amount of channel I was less than channel II. So channel I give good price for the coinsumer.

It could be inferred from the Table. 4, that the marketing efficiency of channel I and channel II was 6.11 and 4.8. The results revealed that the marketing efficiency was relatively higher in marketing channel I.

Table 1. Marketing Channels of Black Gram

S. No	Particulars	Type of marketing channel	Growers nvolved (No's)	Percentage in total
1	**Channel I**	Producer→ FPO → Consumer	19	76.00
2	**Channel II**	Producer→ FPO → Wholesaler etailer →Consumer	6	24.00
		Total	**25**	**100.00**

(Parenthesis indicate percentage to the total)

Table 2. Marketing cost incurred by participants in channel I and channel II (Rs/ kg) for Black Gram

Particulars	Channel – I	Channel – II
Cost incurred by producer – farmer		
Marketing cost	-	-
Cost incurred by FPO		
Transportation cost	2	2
	(11.11)	(40.00)
Loading and unloading cost	1	1
	(5.56)	(20.00)
Electricity	5	-
	(27.78)	
Packing and labeling cost	2	-
	(11.11)	
Storage cost	5	2
	(27.78)	(40.00)
Grading cost	3	-
	(16.67)	
Marketing cost	**18**	**5**
	(100.00)	**(100.00)**
Cost incurred by Wholesaler		
Transportation cost	-	3
		(20.00)
Loading and unloading cost	-	2
		(13.33)
Storage	-	2
		(13.33)
Grading cost	-	3
		(20)

Electricity	-	3.5 (23.33)
Packing and Labeling	-	1.5 (10.00)
Marketing cost	-	**15 (100.00)**
Cost incurred by Retailer		
Transportation cost	-	4 (80.00)
Storage	-	1 (20.00)
Marketing cost	**-**	**5 (100.00)**
Total marketing cost	**18**	**25**

Source: Field data collection

Table 3. Price spread in existing channels of Black Gram marketing (in Rs/kg)

S. No	Particulars	Channel I	Channel II
1.	**Farmer**		
	Price received by the producer - farmer	72 (65.45)	72 (60)
2.	**FPO**		
	FPOs purchase price	72 (65.45)	72 (60)
	Cost incurred	18 (16.36)	5 (4.16)
	FPOs selling price	110 (100)	82 (68.33)
	Marketing Margin	**20 (18.18)**	**5 (4.16)**
3.	**Wholesaler**		

	Wholesaler's purchase price	-	82 (68.33)
	Cost incurred	-	15 (12.5)
	Wholesaler's selling price	-	105 (87.5)
	Marketing Margin	-	**8 (6.67)**
4.	**Retailer**		
	Retailer's purchase price	-	105 (87.5)
	Cost incurred	-	5 (4.16)
	Retailer's selling price	-	120 (100)
	Marketing Margin	-	**10 (8.33)**
5.	**Price paid by the consumer**	110 (100)	120 (100)
	Total marketing margin	**34 (30.91)**	**23 (19.16)**
	Total marketing cost	**18 (16.36)**	**25 (20.83)**
	Price spread	**38 (34.54)**	**48 (40)**
	Producer's share in consumer price (%)	**65.45**	**60**

Source: Field data collection

Table 4. Marketing Efficiency analysis of Black gram

SL. No	Particulars	Channel – I	Channel – II
1	Total marketing cost (I)	18	25
2	Consumer's price (V)	110	120
	Marketing Efficiency (by shepherd's method)**ME=(V/I)-1**	**6.11**	4.8

Source: Field data collection

CONCLUSION

Based the present study some of the conclusions must be drawn for future guidelines viz., the marketing pattern of the Black gram followed two channels. In channel I such as Producer, FPO and Consumer included. Channel II included Producer, FPO, Wholesale, Retailer and Consumer. The total marketing cost incurred by participants in channel I and channel II was Rs.18 and Rs.25. The results revealed that the price spread was higher in channel II compared to channel I. Channel I was more cost effective for Black gram farmers. The marketing efficiency of channel I and channel II was 6.11 and 4.8. The results revealed that the marketing efficiency was relatively higher in marketing channel I

Hence, each FPO working with perishable goods should be supplied with cold storage facilities. Packaging, grading, branding, processing, and marketing rules are required, especially for value-added items.For enhanced market access, a mobile app that serves as a platform for buyers and sellers might be developed.

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